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Stoddard, L. F., Ames, Iowa	
Stuber, B. F., Akron, Ohio	Viola
Sutherland, Jean, Hamilton, Ontario	Violin
Swihart, J. L., Evanston, Ill.	Violin or Cornet
Tindall, Glenn M., St. Louis, Mo.	Oboe, Piano or Pipe Organ
Tubbs, F. A., Bryan, Ohio	Cornet
Tuller, Curtis, W.,.	Violin or Clarinet
Wheeler, Harold, Manhattan, Kan.	Flute, Pissolio or Piano
Winkler, Theo, Sheboygan, Wis.	Violin, Viola or Cello
Wise, W. F., Anderson, Ind.	Violin

Names in too late to be classified.

Clarke, Harry, Cleveland, Ohio	Bass
McCauley, Lee, Crawfordsville, Ind.	Bass
Thorn, Sam, St. Paul, Minn.	Violin
Matthew, David E., Ithaca, N. Y.	
Ryan, Harry H., Guthrie, Okla.	
Bell, Lillian M., Warrensburg, Mo.	

☞Owing to a typographical error, some of the application cards state that the cost of renewals is $2.50. The amount should be $2.00, and anyone receiving one of the cards containing the error is asked to disregard the amount there given and to send $2.00 for the renewal of active membership.

SOUNDS AND NOISES.

A twenty minute assembly for any grades from the fifth to the second year high school

WILLYS P. KENT, Ethical Culture School, New York City.

There are some things which are easily described in words; objects which can be seen can be so accurately described that one who has never seen them before can easily recognize them. And then there are other things that it is almost impossible to describe at all. I could talk all day to you about the flavor of a tomato, and if you had never tasted one, you would know no more about it than when I began. What is the difference between the taste of vanilla and the tast of chocolate? You know, but you can't tell it in words.

How about sounds and noises? Can you describe them? At first the answer seems to be, yes; you could easily tell me that you heard something that sounded like a violin; but if I should say, "I never heard a violin; is it some kind of a bird?" then you would not find it at all easy to make me understand.

Still there are a few things that we can say about sounds. We can say that they are loud or soft; we can say that they are high or low, or that they are pleasant or unpleasant. If a tone is loud we say that it has Volume; its Pitch is said to be high or low; we say that it has a pleasant or an unpleasant Quality. Now let us see if we can discover what makes a tone loud or soft, high or low, pleasant or unpleasant.

All sound is caused by movements in the air; it is very hard to describe these movements, because they can't be seen; so let us compare them with the rings we make on the water when we throw a stone in, for they are very much alike. The chief difference is that the rings on the water are just on the surface, while the air movements go in all directions, up and down as well as out; then too the air movements are much more rapid; in other respects they are very similar; if you drop a tiny pebble in the water you get a tiny wave that you can scarcely see, and if you drop a pin on the floor you get a tiny air wave that you can scarcely hear; these air waves are called Vibrations.

Vibrations may be started in a great many ways, by wind blowing through the trees, by locusts rubbing their wings against their bodies, or by boys slamming doors; in fact by almost everything that anybody ever does; but for musical purposes the usual methods are blowing whistles, snapping or bowing strings, and beating drums.

Imagine that this rope,[1] is the string of a giant guitar; I snap it and you can see it moving up and down; at first it vibrates through a distance of several inches, but gradually the distance grows less until the rope is motionless; this distance is called the Amplitude of the vibration; the greater the amplitude the louder the sound. You go to the piano and strike a key, hard; the wire begins to vibrate and the tone is a loud one because the amplitude is great, and as the amplitude grows less the sound dies away. So when we say that a sound is loud or soft we mean that the amplitude of the air wave is greater or less.

Now why is it that when you could see the rope vibrating so plainly you could hear no sound? It is because it did not vibrate rapidly enough. We can't see the hour hand of a clock move, because it moves so slowly; and we can't hear air waves if they come too slowly; the people who have measured such things tell us that the human ear can not detect air waves unless at least sixteen come in one second; of course the vibrating rope sent out air waves, but probably not more than eight or ten a second.

Probably most all of you know how the pitch of a tone is determined by the speed of the vibrations; but if any of you do not you can figure it out from things common in every one's experience. Hold up your hand and wiggle one finger as fast as you can. Now wave your arm from the shoulder as fast as you can. Which was quicker? Your finger of course; yet neither was quick enough to be heard. We must find something that will wiggle faster. Which moves the wings more rapidly, a mosquito or a bumble-bee? And which makes the higher tone? There you have the answer to the whole question; the faster the vibrations the higher the pitch of the tone. And how fast do you think a mosquito has to move her wings in order to warn you that she is coming? You can move your finger about five or six times a second, but the mosquito's wings move at the rate of seven hundred times a second. In general we may say that high tones are produced by small things; the squeak of a mouse is higher than the roar of a lion and you can think of many other examples.

In musical instruments we control the pitch in the same way, by making the strings or whistles that produce the tones, of different length or thickness; notice how the violin tone gets higher as I shorten the string.

But size is not the only thing which determines pitch; Tension also controls it; if a string is drawn tighter it will vibrate more rapidly or more slowly; which? You can see by looking at the rope again. I snap it, it vibrates slowly; I draw it tighter, that is, I increase the tension, and you can see the vibrations speed up; when I turn the key and tighten the violin string, we can hear the same thing happen which we saw as we watched the rope.

Some of you probably think that the harder you strike a string the faster it will vibrate. Is that true? No; the strength of the blow will affect only the amplitude. You can see that by watching this pendulum swing.[2] Keep time with it. The more I push it the farther it swings, but not a bit faster. It is a lucky thing for music that this is so; think what an awful noise there would be if every time we tried to sing louder our tones should get higher, and end in a squeak if we sang our loudest!

We have now discovered that the strength of a tone depends upon the amplitude of the vibration, and that its pitch depends upon the speed. But what is it that makes a tone pleasant or unpleasant?

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[1] The rope should be from ten to twenty feet long and not too stiff, and tied at one end to a door knob.

[2] Any little weight and three feet of string will make a good pendulum.

I will sing you two tones;..........; the volume was the same, the pitch was the same, yet what a difference in quality! What causes it?

Almost all sounds we ever hear are compound sounds, made by the combination of a number of vibrations of different speeds. I swing my arm, a steady even vibration; and now, at the same time I wiggle my fingers, ...two motions going on at once. The big waves roll in at the sea-shore, and on top of every big wave you can see countless little ripples, made by the latest breeze; compound waves. The next time you stand by a quiet pond throw two or three stones in at once, not too close together, and see the compound vibrations when the different waves meet. In much the same way a violin string can vibrate as a whole, or vibrate in parts, or it may do both at once; our rope will make this plainer.[3]

These are the simplest examples of compound vibration. Every different object has its own peculiar way of vibrating; farmers tap a water-melon with their fingers to see if it is ripe, because green melons and ripe ones do not vibrate the same. You can recognise the voices of half the people you know because no two throats are exactly alike. A shoe thrown onto the floor makes an entirely different sound from a chair tipping over.

The quality of tone produced by a musical instrument is determined to some degree by the person who plays it, but very much more by the person who made it, for he decided the size, the shape, and the material. Compare a flute's tone with the sound made by blowing across this bottle. Compare the tones of this circular buzz-saw, when I strike it gently, and this tubular chime; both are made of steel; the difference is caused by the shape. The next illustration will require very close attention; listen to this D string on the violin; and now to a D played on the G string; the pitch is the same; can you hear a very slight difference in the quality? It is because the second tone was played on a shorter but thicker string.

Now compare a metal whistle with a wooden one; a tin flageolet with a wooden flute; a lead and a steel bar of similar size and shape; a metalophone and a xylophone; the differences here are due principally to the material itself.[4]

There are many other things which might be said on the subject of tone quality, but there is time now for only one. Strike the chime or the buzz saw, or even the piano with all your strength, and what was a beautiful sound becomes a discordant jangle; the metal seems to be trying to tear itself all to pieces it is being forced to vibrate in more ways than it can attend to. The same thing is true when people shout instead of sing; the very best singer can make very bad noises by straining, and trying to sing too loudly, while those of us whose voices are not especially fine can make beautiful tones if only we sing softly.

[3] The simple vibration, Fig. 1, may best be illustrated by swinging the rope as if for a child to jump. Then let the rope come to a rest, and start again, but turn more rapidly and it will swing in two parts as in Fig. 2. A still greater speed will give Figs. 3 and 4. With a little practice one can easily control the number of parts into which the rope will divide.

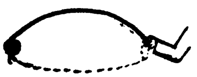
Fig. 1

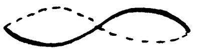
Fig. 2

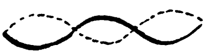
Fig. 3

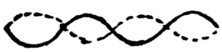
Fig. 4

[4] If these various instruments can not be easily obtained, all sorts of things may be substituted; dishpans and china lamp-shades; a six inch piece of a broom handle will do for a xylophone; compare a horse-shoe or a triangle with a piece of lead pipe; cowbells and other bells, etc., etc.

Chicago Meeting of the M. T. N. A.

Things are rapidly getting under way for the Forty-second Annual meeting of the Music Teacher's National Association to be held in Chicago Dec. 29 30 and 31. Headquarters will be at the La Salle Hotel. A reception to visiting members will be given at the Art Institute by the American Musical Society on the evening of the 29th. Among the tentative plans are special programs by the Chicago Opera Association and by the Chicago Symphony Orchestra, Frederick Stock, Conductor.

A large local committee has been made up of representatives of the different Chicago musical organizations and their plans are being rapidly worked out. The slogan of this meeting will be "Music and the Educational System of the United States." This is certainly a timely subject and one which should be given the attention of all musicians

Charles N. Boyd of Pittsburgh is the new chairman of the committee on Organ and Choral Music; Osbourne McConathy of Evanston, Ill. of the committee on Public School Music, and Hollis Dann is a new member of that committee.

The preliminary announcements will be send out shortly. Inquires concerning the coming meeting may be addressed to P. C. Lutkin, president, Evanston, Ill., or to R. G. McCutchan, secretary, Greencastle, Indiana.

From Our Officers

EFFIE E. HARMON, South Bend, Ind.

The idea of an "Officers' Corner" in the Journal is surely a fine one, for we are all interested in knowing what the other busy person is "doing," or at least "thinking about."

A bit of work I did last year, and am continuing (by request) *this* year is to spend ten or fifteen minutes teaching children's songs in the Mothers' Department of the Progress Club. The mothers learn one new song at each meeting. The songs are the same that the first grade children are learning in the public school and the mothers are enthusiastic over knowing the same songs, and being able to sing them with their *own* children.

Just recently the presidents of two of our ward school Mothers' Clubs asked to have songs presented at their meetings. A capable first grade teacher in each of these districts will present these songs in the same manner that she teaches the children.

PHILIP C. HAYDEN, Keokuk, Iowa.

As I consider the situation in the field of School Music education, I seem to see an undercurrent of contest between two views of how school music education should be directed. On the one hand there is constant demand from a certain circle of music educators for more song singing and more listening lessons with the idea of developing music appreciation. These views have been reiterated and insisted upon by enthusiastic advocates.

On the other hand there are many supervisors who believe the song singing, music appreciation activities have already been carried too far; they believe in a certain amount of work along these lines for cultural and inspirational values but they also believe the study of music reading is just as necessary to the child's happiness and premanent usefulness in the community.

If to hold this view is to be an "old fogy" there are a good many of us who will be placed in that class. Signs are plentiful that the conviction is becoming